

Optobiology: sensors and actuators of cellular activities

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Effectives: 25

Language: English

Prerequisites: cell biology, notions of microscopy

Where?

PRG campus

When?

26 – 30 September

Evaluation:

Article presentation by groups of 3 people

Questions:

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Number ECTS: 3

Total numbers of hours:

30

Teaching format:

conferences + practical course on image analysis

Teaching objectives

Optobiology is an ensemble of methods of microscopy to : - trigger and control precisely signaling pathways and neuronal activities using light, and - read and measure quantitatively the signaling activities using biosensors. This interdisciplinary course aims at explaining the major concepts behind these techniques and at showing experimental examples of their use in research, both in cell biology and in neuroscience.

Teaching outline

The core of this course is seminars by leading experts in the field. It will also include a practical course in 2 parts dedicated to image analysis in the context of optobiology.